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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,139	01/14/2004	Peter Ashwood Smith	16258ROUS01U	3823
34645	7590	07/10/2007		
JOHN C. GORECKI, ESQ. P.O BOX 553 CARLISLE, MA 01741			EXAMINER PARK, JUNG H	
			ART UNIT 2616	PAPER NUMBER
			MAIL DATE 07/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/757,139	Applicant(s) SMITH, PETER ASHWOOD	
	Examiner Jung Park	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings Objections

1. The drawings are objected to because drawing elements in Figures 1-7 need descriptive text label. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application.

Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Appropriate correction required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

3. Claims 1-6 and 16-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Li et al. (US 2004/0174825, "Li").

Regarding claim 1, Li discloses a method of controlling the dissemination of routing information on a communication network, the method comprising the steps of:

- receiving a link state advertisement from the network (receive LSA message, see fig.2-4 and ¶.10);

Art Unit: 2616

- ascertaining distance information associated with at least one of the link state advertisement (TTL indicating a radius of the flooding range, see fig.4, ¶.43, and ¶.45) and link state information contained in the link state advertisement (TTL in LSA message, see fig.4); and
- selectively forwarding the link state advertisement on the network (selectively forwarding according to LSA status and TTL, see ¶.34-35), the step of selectively forwarding depending on the ascertained distance information (based on TTL value, see ¶.43 and ¶.45; also see ¶.10-12).

Regarding claim 2, Li discloses, "wherein the step of selectively forwarding comprises: forwarding the link state advertisement on the network (flooding LSA, see ¶.45) where the distance information indicates the link state advertisement is likely to be relevant to other nodes on the network (flooding within the radius of range, see ¶.45) and not forwarding the link state advertisement on the network where the distance information indicates the link state advertisement is not likely to be relevant to other nodes on the network (flooding only within a predetermined distance, see ¶.43 and ¶.45; also see ¶.36)."

Regarding claim 3, Li discloses, "wherein the step of selectively forwarding comprises: forwarding the link state advertisement on the network if the link state advertisement contained link state information that was relevant (flooding within the radius of range, see ¶.45), and not forwarding the link state advertisement on the network if the link state advertisement contained information that was not relevant (flooding only within a predetermined distance, see ¶.43 and ¶.45; also see ¶.36)."

Regarding claim 4, Li discloses, “wherein the step of ascertaining distance information comprises analyzing whether link state information contained in the link state advertisement is relevant (a predetermined distance, see ¶.43 and ¶.45).”

Regarding claim 5, Li discloses, “wherein the distance information is contained in the link state advertisement (TTL in LSA, see fig.4).”

Regarding claim 6, Li discloses, “wherein the distance information is measured by the sum of link costs (TTL is a number of hops, see ¶.45).”

Regarding claim 16, it is a claim corresponding to claim 1, except the limitations of “control logic (inherent to have a control logic to control OSPF protocol in ¶.6 and for the functions in ¶.43-45)” and “if the distance information exceeds a predetermined metric (a predefined distance using a TTL value, see ¶.43 and ¶.45) and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claim 17, it is a claim corresponding to the ascertain step rejected claim 1 and is therefore rejected for the similar reasons set forth in the rejection of claim 1.

Regarding claim 18, it is a claim corresponding to claim 6 and is therefore rejected for the similar reasons set forth in the rejection of claim 6.

Regarding claim 19, Li discloses, "further comprising a routing table (database, ¶.2), and wherein the logic further configured to update information in the routing table (update, see ¶.2) from link state information contained in the link state advertisement (LSA, see ¶.2) if the information is determined to be relevant (¶.34-35)."

Regarding claim 20, Li discloses, " further comprising a routing table (database, ¶.2) and wherein the control logic is further configured to update information in the routing table from link state information contained in the link state advertisement (update & LSA, see ¶.2), and wherein the control logic is configured to selectively drop the link state advertisement if the link state advertisement is not likely to be relevant to another router on the network (using LSA status, see ¶.43 and 45; also see ¶.10-12)."

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li in view of Kwiatkowski et al. (US 2004/0120355, "Kwiatkowski").

Regarding claim 7, Li discloses the method of limiting the dissemination of LSA within a predefined range such that not every router/node receives every LSA (see a predetermined distance, see ¶.43 and ¶.45) using OSPF protocol (¶.6), but does not explicitly disclose the limitations of "a plurality of OSPF routers interconnected in a network and belong to an OSPF area." However, Kwiatkowski discloses "a plurality of

OSPF routers interconnected in a network (OSPF routers, see fig.1 and ¶.16) and belong to an OSPF area (multiple areas, see ¶.17).” Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant’s invention to apply the OPSF area configuration method disclosed by Kwiatkowski into the LSA flooding method within a predefined distance in order to preventing over flooding of LSA messages to every router and also with the motivation of standard compliance.

Regarding claim 8, Li discloses, “an ad-hoc wireless mesh network (ad-hoc, see ¶.3).”, but lacks what Kwiatkowski discloses, “the plurality of OSPF routers are interconnected (fig.1 and ¶.17).” This claim is rejected for the same reasons and motivation set forth in the rejection of claim 7.

Regarding claim 9, Li discloses, “wherein the network is configured such that LSAs are disseminated only a predefined distance (¶.43), but lacks what Kwiatkowski discloses, “within the OSPF area (¶.17).” This claim is rejected for the same reasons and motivation set forth in the rejection of claim 7.

Regarding claim 10, Li lacks what Kwiatkowski discloses, “wherein a subset of the OSPF routers are focal nodes (border nodes in fig.1).” This claim is rejected for the same reasons and motivation set forth in the rejection of claim 7.

Regarding claim 11, it is a claim corresponding to claim 9 and is therefore rejected for the similar reasons set forth in the rejection of claim 9.

Regarding claim 12, Li lacks what Kwiatkowski discloses, "wherein the predetermined distance is selected such that each LSA is received by at least two focal nodes (106 & 107 as shown in fig.1)." This claim is rejected for the same reasons and motivation set forth in the rejection of claim 7.

Regarding claim 13, Li lacks what Kwiatkowski discloses, "wherein nodes on the network other than focal nodes are configured to maintain a routing table containing information obtained from LSAs, the routing table containing information associated with at least two focal nodes (routing table ...topology, see ¶.14)." This claim is rejected for the same reasons and motivation set forth in the rejection of claim 7.

Regarding claim 14, Li lacks what Kwiatkowski discloses, "wherein the focal nodes are area border routers to an OSPF backbone area (106 & 107 as shown in fig.1)."

Regarding claim 15, Li discloses, "configured to disseminate link state information for nodes in their local area, their local area being defined as that portion of the network from which the focal nodes receive LSAs (¶.43 and ¶.45)."

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

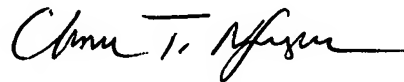
Art Unit: 2616

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP

Jung Park
Patent Examiner



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